ORIGINAL

ORIGINAL

LAW OFFICES
LEVENTHAL, SENTER & LERMAN P.L.L.C.
SUITE 600
2000 K STREET, N.W.
WASHINGTON, D.C. 20006-1809

TELEPHONE
(202) 429-8970

TELECOPIER
(202) 293-7783

WWW.LSL-LAW.COM

EX PARTE OR LATE FILED

February 12, 2001

STEPHEN D. BARUCH
(202) 416-6782

E-MAIL
SBARUCH@LSL-LAW.COM

DIRECT FAX
(202) 429-4626

William F. Caton
Acting Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Presentation in IB Docket No. 01-96

Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206, this letter serves as notice that on February 11, 2002 Gerald B. Helman and Jay Brosius of Virtual Geosatellite, LLC ("Virtual Geosatellite"), and Raul R. Rodriguez and Stephen D. Baruch, counsel to Virtual Geosatellite, met with Thomas Tycz, Alexandra Field, Jennifer Gilsenan, Mark Young, and Robert Nelson of the Commission's International Bureau concerning the above-referenced proceeding.

Virtual Geosatellite's representatives presented the attached proposal for resolution of the spectrum assignment policy aspect of the ongoing rulemaking proceeding in IB Docket No. 01-96. They indicated that the proposed approach would provide all proposed non-GSO Ku-band systems access to the full spectrum available for most of the time. Only when there were in-line events between circular orbit and virtual geostationary orbit non-GSO satellites would the two systems default to pre-coordinated and predetermined segments of the available bands. The reversion to predetermined bands resolves the current difficulty with Alternative 3 for system architectures such as Virtual Geosatellite's that do not permit the use of satellite diversity. Virtual Geosatellite emphasized that its new proposal marks a tremendous step forward over Alternatives 3 and 4 from the standpoint both of efficient use of the orbital/spectrum resource and ease of international acceptance. Other issues relating to the assignment policy proceeding, all of which are already part of the record of this proceeding, were also discussed.

The original and one copy of this letter are submitted for inclusion in the record of the referenced proceeding.

Sincerely,

Stephen D. Baruch

Enclosure

cc (w/encl) by e-mail:
Mr. Thomas Tycz
Ms. Alexandra Field
Ms. Jennifer Gilsenan
Mr. Mark Young
Mr. Robert Nelson

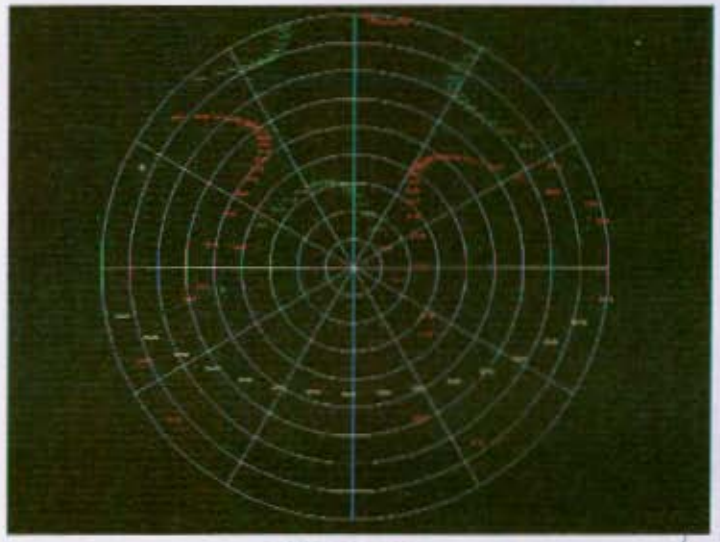
Protecting Spectrum for Future NGSO Systems

Briefing to the FCC International Bureau
February 11, 2002

virtual geo

Virtual Geostationary Orbit (VGSO) Advantages

- **Permits new slotting opportunities comparable to GSO without in-line events**
  - Equivalent in number
  - Without mutual interference or interference to GSO
- **Emulates GSO characteristics**
- **Enables GSO-like coordination**
  - Obviates need to coordinate disruption
  - Obviates tracking each other's orbits and maneuvers
- **Facilitates multiple entry and future entry**

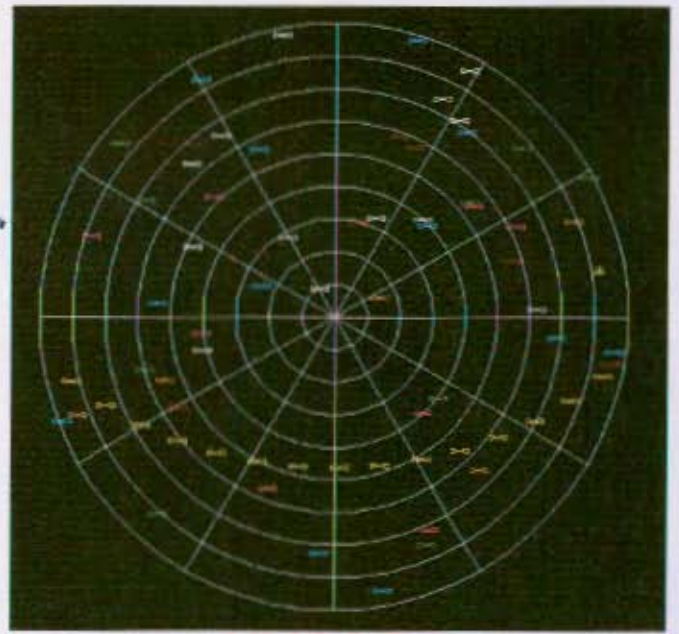


VGSOs

virtual geo

VGSO's Advantages are Unique among NGSOs

- **No active arc crossings**
  - Enables packing without gaps
- **Virtual Geostationary behavior**
  - Very long loiter times
    - *Those chosen by operator*
- **Unequaled GSO protection**
  - Separation > than 40°
- **Simplified tracking**
  - All satellites follow the same sky track
- **Adding new systems to unfilled slots does not add interference events**
  - Far more frequency reuse possible than with other NGSO proposals



NVGSOs

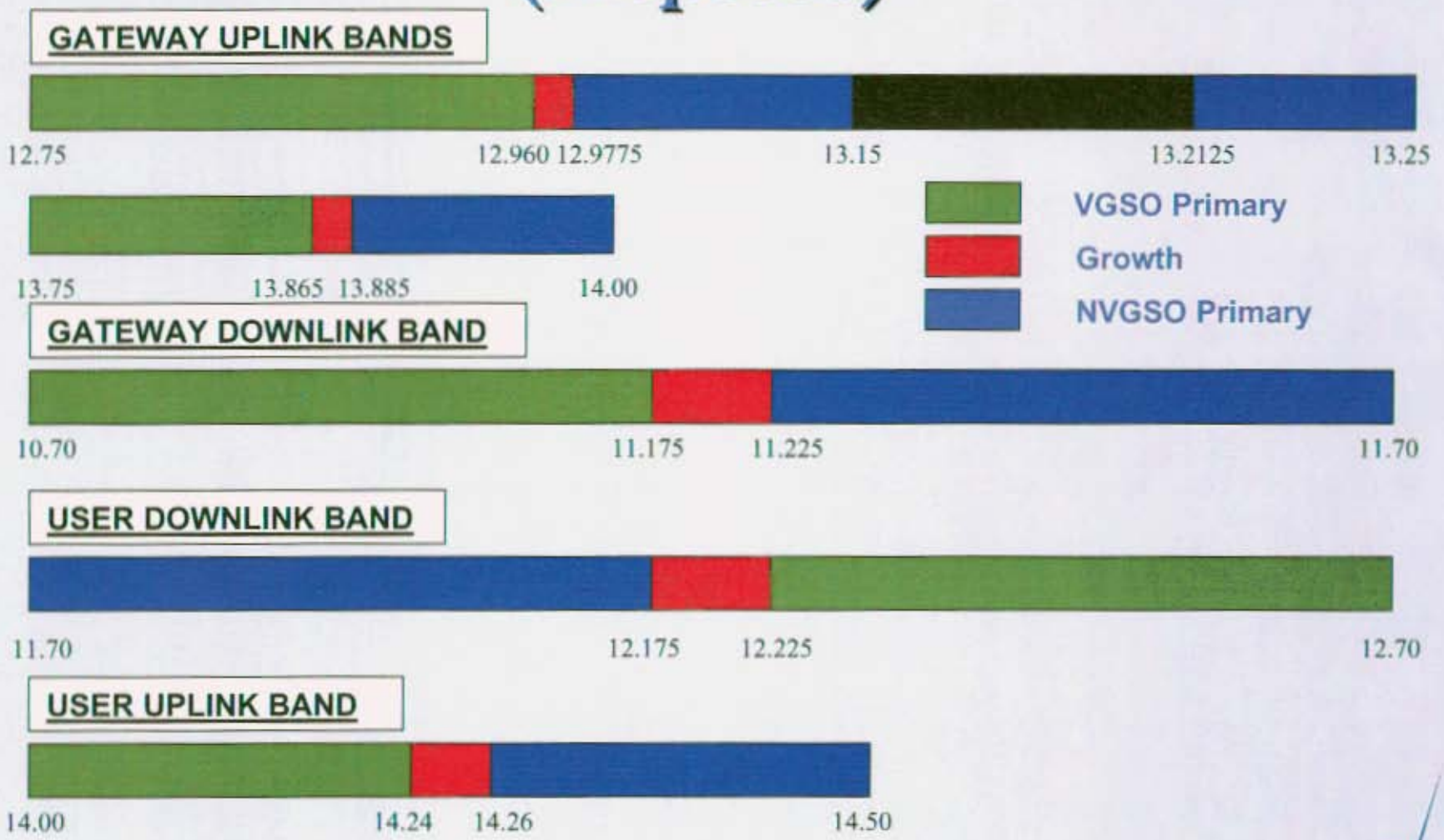
virtual geo

Protecting The Opportunity

- **Blend Alternatives 3 and 4**
  - All System built for and may use all spectrum
  - All systems revert to 1/2 spectrum during in-line event (ILE)
  - VGSOs always revert to same fixed half of spectrum during ILE
    - *VGSOs primary in that half*
    - *Share using mandated slotting plan*
    - *Other NGSOs permitted secondary access there*
  - Non-VGSOs (NVGSOs) always revert to other half of spectrum during ILE w/ VGSO
    - *NVGSOs primary there*
    - *VGSO systems permitted secondary access there*
  - In-line events between NVGSOs
    - *Spectrum half assignments per pair-wise coordination*

virtual geo

NGSO Ku-Band Frequency Use (Proposed)



virtual geo

Coordination in Blended 3/4

- **Use spectrum reversion trigger rules as proposed by Skybridge**
  - Not needed among VGSO systems
  - VGSO Coordination by GSO-like slot and angle management
- **NVGSOs may use any Alternative 3 mitigation strategy they have proposed to avoid VGSO or each other**
  - Half spectrum
  - Diversity

virtual geo

Triple Coincidence

- Very low likelihood
- Not addressed by recent discussions on Alternative 3
- Possible Solutions to three-way interference
  - Further spectrum division
  - Diversity
  - Buffering, coding, or
  - Accepted
- Given low probability, latter three options preferred

Advantages of This Proposal

- Preserves best of Alternatives 3 and 4
- Facilitates further NGSO licensing into VGSO slots
- Makes maximum use of available spectrum
- Gives a home for future worldwide VGSO growth
  - Preserves opportunity for significant worldwide slot expansion
  - Provides "equitable access" opportunities for developing countries

virtual geo